

## STATEMENT OF BASIS

### DATE OF DRAFT

Logan Generating Plant is located at State Route 130, Logan Township, New Jersey , 08085 and consists of one pulverized coal-fired boiler with a rated heat input capacity of 2,116 million British thermal units per hour, one oil-fired auxiliary boiler, one steam turbine electric generator, and associated material-handling and emission control equipment. Logan Generating Plant is owned and operated by Cogentrix Energy, Inc. The DEP has assigned facility identification number 55834 to Logan Generating Plant. This statement of basis is for permit activity number BOP050002.

The facility is classified as a major facility based on its potential to emit Nitrogen oxides (NO<sub>x</sub>) equal to 1392 tons per year (tpy), Carbon Monoxide (CO) equal to 1021 tpy, Volatile organic Compounds (VOC) equal to 33.5 tpy, Sulfur Dioxide (SO<sub>2</sub>) equal to 1480 tpy, Total Suspended Particulate Matter (TSP) equal to 181.16 tpy, and Particulate Matter less than 10 microns (PM<sub>10</sub>) equal to 181.16 tpy to the atmosphere.

It is also classified as a major hazardous air pollutant (HAP) facility. A major HAP emitting facility is designated as major when the allowed emissions exceed 10 tons per year of any individual hazardous air pollutant or 25 tons per year of any combination of individual hazardous air pollutants that may be emitted simultaneously.

This permit allows any individual hazardous air pollutant to be emitted at a rate to not exceed:

| HAP                       | TPY    |
|---------------------------|--------|
| Hydrogen fluoride         | 10     |
| Arsenic                   | 0.143  |
| Beryllium                 | 0.0145 |
| Cadmium                   | 0.02   |
| Chromium                  | 0.342  |
| Lead                      | 0.0438 |
| Mercury                   | 0.0464 |
| Hydrogen chloride         | 80.5   |
| Selenium                  | 4.82   |
| Formaldehyde              | 2.04   |
| Cobalt                    | 0.41   |
| Nickel                    | 7.98   |
| Phosphorus                | 17.56  |
| Polycyclic organic matter | 0.17   |
| Manganese                 | 9.98   |

The equipment that emits air contaminants from this facility include: one coal-fired steam generating boiler, one oil-fired auxiliary boiler, one steam turbine electric generator, and associated material-handling and emission control equipment. The coal-fired steam generating boiler is controlled by a selective catalytic oxidizer with a NO<sub>x</sub> removal efficiency of 63%, a spray dryer absorber with an SO<sub>2</sub> removal efficiency of 93%, and a baghouse filter with a particulate removal efficiency of 99.7%.

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, and the Department's evaluation of the information included in the facility's application, the Department has concluded that this air pollution control operating permit should be approved to allow operation of the existing facility for five

years. Prior to the expiration of the five year period, the facility will be required to apply for a renewal of this operating permit, at which time the Department will evaluate the facility and issue a public notice with its findings.

The operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and
2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.

The conditions of approval for this operating permit are based on conditions of approval in all preconstruction permits for equipment at this facility, and on applicable requirements in state and federal air pollution control rules. Pursuant to N.J.A.C. 7:27-22.33, all preconstruction permits issued to this facility have been incorporated in this operating permit. Each condition in the permit includes the citation of the applicable requirement on which the condition is based. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.